

IN THE CLAIMS

1. (original) A surgical tether for orthopedic treatment to secure to two adjacent bone portions, said tether comprising:

a cord having a tensile strength sufficient to maintain a desired distance or orientation of the two bone portions;

a first sheath substantially encasing the cord, said first sheath comprising a plurality of fibers and providing an abrasion resistant coating to the cord;

a radiopaque element; and

optionally, a second sheath, said second sheath substantially encasing the first sheath.

2. (previously presented) The tether of claim 1 wherein the cord is slidably received within the second outer sheath.

3. (original) The tether of claim 1 wherein the cord is elongate and defines a longitudinal axis and wherein the cord is free to move longitudinally with respect to the first sheath.

4. (previously presented) The tether of claim 1 wherein the first and second sheaths are frictionally engaged with each other.

5. (original) The tether of claim 1 wherein the cord consists of a single fiber.

6. (original) The tether of claim 1 wherein the cord comprises a plurality of fibers.
7. (original) The tether of claim 6 wherein the plurality of fibers are braided to provide the cord.
8. (withdrawn) The tether of claim 7 wherein the radiopaque element comprises a single radiopaque filament woven in the plurality of fibers.
9. (previously presented) The tether of claim 6 wherein the plurality of fibers are braided to provide the first sheath.
10. (original) The tether of claim 1 wherein the radiopaque element comprises barium sulfate.
11. (original) The tether of claim 1 wherein the first sheath comprises a radiopaque element.
12. (withdrawn) The tether of claim 1 wherein the radiopaque element comprises a single radiopaque filament woven in the plurality of filaments.
13. (original) The tether of claim 1 wherein the radiopaque element comprises a plurality of radiopaque filaments.

14. (previously presented) The tether of claim 1 wherein the radiopaque element comprises one or more radiopaque filaments spirally wound around at least one of the cord, the first sheath, or the second sheath.

15. (original) The spinal tether of claim 1 comprising the optional second sheath substantially encasing the first sheath wherein second sheath is not fixedly secured to either the cord or the first sheath.

16. (original) The tether of claim 15 wherein the second sheath comprises a plurality of braided fibers.

17. (withdrawn) The tether of claim 15 wherein the radiopaque fiber is embedded within the second sheath.

18. (previously presented) The tether of claim 1 wherein the cord is elongate and defines a longitudinal direction and the second sheath is free to move longitudinally with respect to the first sheath or the cord.

19. (original) The tether of claim 1 wherein the tether is attached to a plurality of bone portions.

20. (original) The tether of claim 1 wherein the cord or the first sheath or both are composed of an elastomeric material.

21. (previously presented) The tether of claim 1 wherein said tether secures to at least a first and second vertebrae.

22. (previously presented) The tether of claim 1 wherein said tether secures to at least an articulating joint.

23. (original) The tether of claim 1 wherein the cord and the first sheath are flexible.

24. (original) The tether of claim 1 wherein the cord is composed of a polymeric material selected from the group consisting of: polyethylene, ultra high molecular weight polyethylene, polypropylene, fluoropolymers, polytetrafluoroethylene, polyamides, polyethylene terephthalate, polyesters, polyaramid, silicon rubbers, polyurethane, polyvinylchloride.

25. (original) The tether of claim 24 wherein the first sheath is composed of a material different from the cord.

26. (original) The tether of claim 25 wherein the first sheath is composed of a material selected from the group consisting of: polyethylene, polypropylene, fluoropolymers,

polytetrafluoroethylene, polyamides, polyethylene terephthalate, polyesters, polyaramid, silicon rubbers, polyurethane, polyvinylchloride.

27. (original) The tether of claim 1 wherein the cord and first sheath are composed of a biodegradable material.

28. (original) The tether of claim 1 wherein the cord and first sheath are composed of a non-biodegradable material.

29. (original) The tether of claim 1 comprising a first bone fastener and a second bone fastener to secure the tether to the two bone portions.

30. (original) The tether of claim 29 wherein the first and second bone fasteners secure the cord to the first and second bone portions.

31. (original) The tether of claim 30 wherein the first sheath is not secured to the two bone portions.

32. (original) The tether of claim 30 comprising the second sheath and wherein the second sheath is not secured to the two or more bone portions.

33. (original) The tether of claim 1 wherein the radiopaque element is composed of a biocompatible metallic fiber.

34. (original) The tether of claim 33 wherein the radiopaque element is composed of a material selected from the group consisting of: nitinol, titanium, titanium-vanadium-aluminum alloy, cobalt-chromium alloy, cobalt-chromium-molybdenum alloy, cobalt-nickel-chromium-molybdenum alloy, stainless steel, tantalum, niobium, hafnium, tungsten, gold, silver, platinum, and iridium metals, alloys, and mixtures thereof.

35. (original) The tether of claim 1 wherein the radiopaque element exhibits an effective duration *in vivo* of between about one month and about 5 years.

36. (previously presented) A surgical tether for orthopedic treatment to secure to two adjacent bone portions, said tether comprising:

a cord having a tensile strength sufficient to maintain a desired distance or orientation of the two bone portions;

a first sheath substantially encasing the cord, said first sheath comprising a plurality of fibers and providing an abrasion resistant coating to the cord; and

means for imparting radiopacity to the tether.

37. (original) A surgical tether for orthopedic treatment to secure adjacent bone portions, said tether comprising:

a cord having a tensile strength sufficient to maintain a desired distance or orientation of the bone portions;

a first sheath substantially encasing the cord, said first sheath comprising a plurality of fibers;

a radiopaque filament engaged with either the cord or the first sheath; and

means for attaching the first sheath to the cord to provide an abrasion resistant coating to the cord.

38-58. (cancelled)

59. (new) A surgical tether for orthopedic treatment to secure to two adjacent bone portions, said tether comprising:

an innermost central cord made of multiple filaments having a tensile strength of about 2000 N or more, to maintain a desired distance or orientation of the two bone portions, said innermost central cord bearing a load between the two bone portions;

a first sheath of woven fibers that substantially encases said cord, said first sheath being an outer abrasion resistant coating to the cord and being movable with respect to said cord both prior to and after implantation; and

a radiopaque fiber separate from said cord and said sheath, said radiopaque fiber contacting at least one of said cord and said sheath.

60. (new) The tether of claim 59, wherein said radiopaque fiber is placed between said cord and said sheath.